

Area

# **FUEL REPORT**

Sample Rating Trend

# CONTAMINANT

[St Francis Emergency Ctr] BOAT MARINA Starboard Diesel Fuel

Fluid No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

## DIAGNOSIS

### Recommendation

We recommend that you drain the fuel and perform a filter service on this component if not already done. We advise that you flush the component thoroughly before re-filling with fuel. We recommend an early resample to monitor this condition.

St Francis Emergency Ctr

### Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

### Contaminants

There is a high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) present in the sample. Tests confirm the presence of fuel in the fuel.

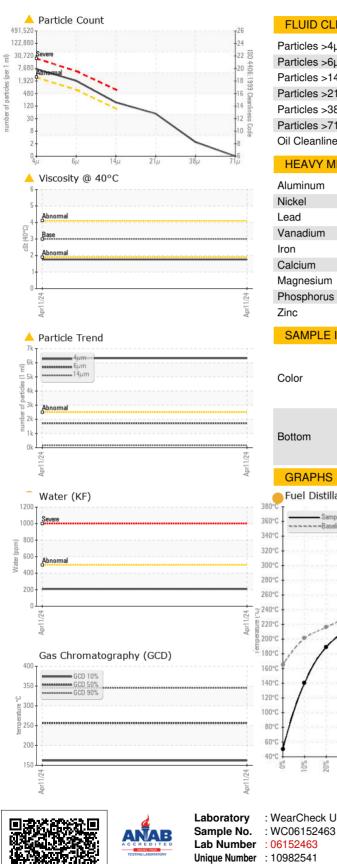
### Fuel Condition

Laboratory tests indicate that this sample does NOT meet specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B). Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

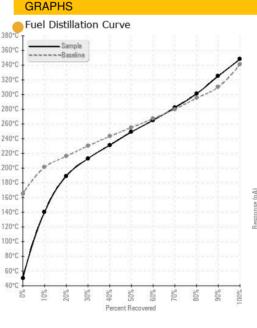
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC06152463		
Sample Date		Client Info		11 Apr 2024		
Machine Age	hrs	Client Info		0		
Sample Status				ABNORMAL		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	0.824		
Fuel Color	text	*Visual Screen	Yllow	Red		
ASTM Color	scalar	*ASTM D1500		L4.5		
Visc @ 40°C	cSt	ASTM D445	3.0	<u> </u>		
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	130		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0		
Sulfur (UVF)	ppm	ASTM D5453		8		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	50		
5% Distillation Point	°C	ASTM D86		86		
10% Distill Point	°C	ASTM D86	201	140		
15% Distillation Point	°C	ASTM D86		170		
20% Distill Point	°C	ASTM D86	216	<mark> </mark> 189		
30% Distill Point	°C	ASTM D86	230	213		
40% Distill Point	°C	ASTM D86	243	231		
50% Distill Point	°C	ASTM D86	255	249		
60% Distill Point	°C	ASTM D86	267	265		
70% Distill Point	°C	ASTM D86	280	282		
80% Distill Point	°C	ASTM D86	295	301 312		
85% Distillation Point 90% Distill Point	°C °C	ASTM D86 ASTM D86	310	312		
95% Distillation Point	°C	ASTM D86	310	325		
Final Boiling Point	°C	ASTM D86	341	348		
Distillation Residue	%	ASTM D86	3.0	1.4		
Distillation Loss	%	ASTM D86	3.0	1.8		
IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	40.2		
Cetane Index		ASTM D4737	<40.0	49.7		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1		
Sodium	ppm	ASTM D5185m	<0.1	2		
Potassium	ppm	ASTM D5185m	<0.1	3		
Water	%	ASTM D6304	< 0.05	0.020		
ppm Water	ppm	ASTM D6304	<500	208		
% Gasoline	%	*In-House	<0.50	<mark> </mark> 13.9		
% Biodiesel	%	*In-House	<20.0	0.0		

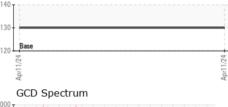


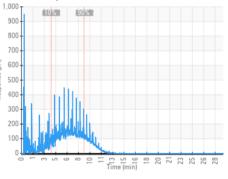
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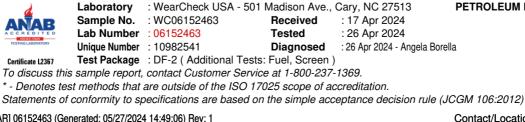


FLUID CLEANLIN	VESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	<b>6</b> 316		
Particles >6µm		ASTM D7647	>640	<u> </u>		
Particles >14µm		ASTM D7647	>80	<b>—</b> 158		
Particles >21µm		ASTM D7647	>20	<u> </u>		
Particles >38µm		ASTM D7647	>4	2		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>18/16/13	<b>A</b> 20/18/14		
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0		
Nickel	ppm	ASTM D5185m	<0.1	0		
Lead	ppm	ASTM D5185m	<0.1	0		
Vanadium	ppm	ASTM D5185m	<0.1	<1		
Iron	ppm	ASTM D5185m	<0.1	0		
Calcium	ppm	ASTM D5185m	<0.1	0		
Magnesium	ppm	ASTM D5185m	<0.1	0		
Phosphorus	ppm	ASTM D5185m	<0.1	0		
Zinc	ppm	ASTM D5185m	<0.1	0		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Fuel Distillation Cu	irve			Pensky-Marte	ns Flash Point (	°C)
SampleBaseline			temperature °C	30		
			temp	Base		









: 26 Apr 2024

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Report Id: PETSUM [WUSCAR] 06152463 (Generated: 05/27/2024 14:49:06) Rev: 1

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